UPS
Pulsar M
2200/3000 VA

Modular on-line double conversion UPS

Maximum availability

- Configuration. Double conversion on-line UPS with automatic by-pass and power correction factor.
- Continuous power supply. Hot swappable batteries. The HotSwap MBP (Maintenance By-Pass) module allows the UPS to be replaced without interrupting the power supply.

HotSwap MBP 4DIN.

- Redundancy. The ModularEasy kit makes it easy to parallel 2 standard Pulsar M UPSs (N + 1 redundancy).

Pulsar M and ModularEasy kit.

- Powershare. The Pulsar output sockets are individually controlled to provide load-shedding to maximise the backup time. It also provides remote reboot and sequential start-up as standard.
- Long backup times. 1 to 4 EXB battery units can be added to the Pulsar M. The Pulsar 3000XL has a built-in high speed charger for additional long backup times.

Minimum total cost of ownership

- ModularEasy kit. A simple, low cost solution for uprating by adding a second standard UPS.
- Easy operation. Multilingual display. Access to a wide range of measurements and set-up menus.
- Remote supervision. A wide range of options using the Solution-Pac supplied: SNMP and HTML, (Network Management Card included with Netpack versions), ModBus/JBus and relay outputs.

RT2U version.

RT3U version.

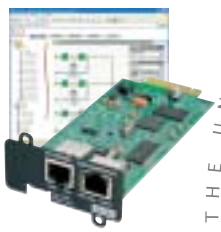
Totally flexibility

Pulsar M has unmatched flexibility.

- Format. Pulsar M is available in RT2U convertible rack/tower version (optimised for rack mounting) or RT3U (for tower or shallow rack).
- Connections. With FlexPDU and HotSwap MBP the Pulsar M can be connected by sockets or terminal blocks. They can be installed as required behind, on the side or on top of the unit.
- Compatible with low power factor loads. Pulsar M is rated for 0.9 total power factor (3000VA/2700 W and 2200VA/1980W).
- Interfaces. USB + serial + remote start/stop + slot for optional communications card.

FlexPDU and HotSwap MBP can be mounted in many different positions.

Adjustable multilingual display.



Network Management Card and MGE EPM Supervisor.

THE UNINTERRUPTIBLE POWER PROVIDER

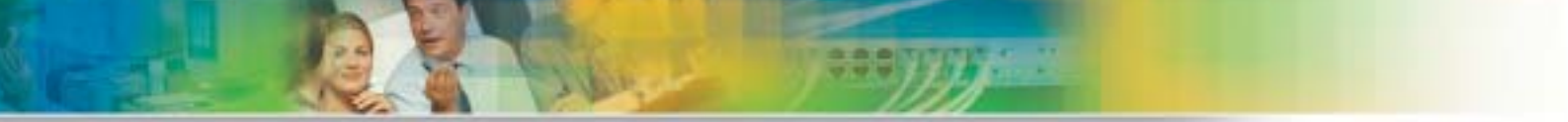
Ideal protection for:

Servers, data storage and network equipment.

Telephony - VoIP.

Medical equipment - Industrial processes.

MGE UPS SYSTEMS



1. LCD Multilingual display
   - 6 languages,
   - displays measurements,
   - displays alarms,
   - access to control and set-up menus.
2. Panel for replacing batteries without interrupting the output.
3. 1 USB port + 1 serial port + remote ON/OFF and emergency stop inputs.
4. EXB battery unit connector.
5. EXB units recognised automatically.
6. 8 IEC 10A sockets, including 4 Powershare programmable sockets and 1 IEC 16A socket.
7. Communications card slot.
8. Mountings for HotSwap MBP and FlexPDU.

Specifications

Pulsar M	2200	3000 - 3000 XL
Rating	2200 VA / 1980 W	3000 VA / 2700 W (1)
Format	RT2U (tower / rack 2U) and RT3U (tower / rack 3U)	
Paralleling with Pulsar M ModularEasy kit(2)		
Rating	4000 VA or 2 x 2200 VA redundant	6000 VA or 2 x 3000 VA redundant
Selection of uprating or redundancy	Automatic selection of uprating (2N) or redundancy (N+1)	
Electrical characteristics		
Architecture	On-line double conversion with automatic by-pass and power factor correction	
Input voltage and frequency ranges without using batteries	100/120/160/184 V(3) to 284V - 40 to 70 Hz	
Output voltage and frequency	230V (adjustable to 200/208/220/240 V), 50/60 Hz auto-select or frequency converter mode	
Connections		
Input	1 IEC C20 (16A) or terminal block on HotSwap MBP HW (Hard-Wired)	
Outputs	8 IEC C13 (10A) sockets + 1 IEC C19 (16A) socket on Pulsar M	
Remotely controlled Powershare sockets	2 groups of 2 x IEC C13 (10A) on Pulsar M	
Additional outputs with HotSwap MBP FR/DIN/BS/IEC/HW	4 FR/Schuko sockets or 3 BS sockets or 6 IEC 10A sockets or terminal blocks (HW version)	
Additional outputs with FlexPDU FR/DIN/BS/IEC	8 FR/Schuko sockets or 6 BS sockets or 12 IEC 10A sockets	
Batteries		
Typical backup times for 50 and 70% of the VA rating except for Pulsar M 3000XL(4)		
Pulsar M	17 mn / 12 mn	15 mn / 10 mn
Pulsar M + 1 EXB	85 mn / 60 mn	60 mn / 40 mn
Pulsar M + 4 EXB	285 mn / 200 mn	190 mn / 150 mn
Battery management	Automatic weekly test (period adjustable using LCD display or in software supplied), automatic recognition of external battery units => continuous maximisation of backup time + deep discharge protection	
Interfaces		
Indicators and display	3 LEDs + adjustable multilingual display: display of measurements, access to control and set-up menus	
Communication ports	1 USB port + 1 RS232 serial port(5) + 1 mini terminal block for remote ON/OFF and emergency stop	
Communications card slots	1 slot for NMC Minislot 2006 card (included in Netpack version) or NMC ModBus/JBus or MC Contacts/Serial	
Operating conditions, standards and approvals		
Operating temperature noise level	0°C to 40°C continuous, 45 dBA	
Performance - Safety - EMC	IEC/EN 62 040-3 (VFI-SS-113), IEC/EN 62 040-1-1, IEC/EN 60 950-1 (RD), IEC/EN 62 040-2 C1 Class	
Approvals	CE, TüV GS, CB report, cTüV-US	
Dimensions (H x W x D) / Weight		
Pulsar M RT (3U)	131 x 440 x 490 mm (compatible with 600 mm deep rack) / 30 kg	131 x 440 x 490 mm (compatible with 600 mm deep rack) / 30 kg (3000 XL = 18 kg)
Pulsar M RT2U	86 x 440 x 640 mm / 31 kg	86 x 440 x 640 mm / 31 kg
Pulsar M EXB RT3U	131 x 440 x 490 mm (compatible with 600 mm deep rack) / 42 kg	
Pulsar M ModularEasy kit (2U)	86 x 440 x 400 mm / 10 kg	

1: Maximum rating with EXB battery units =2400 W. **2:** Pulsar M ModularEasy kit is a 2U module for paralleling 2 Pulsar M UPSs, available from March 2007 - cannot be used with Pulsar M 3000 XL. **3:** Lower limits for <20%, <33%, <66% and >=66% of nominal power. **4:** except Pulsar M 3000 XL: UPS with high speed charger, without built-in batteries, for custom configurations: ask us for details. **5:** USB and RS232 ports cannot be used simultaneously.

Part numbers

	Pulsar M 2200	Pulsar M 3000
Pulsar M RT	68 400	68 402 - M 3000 XL : 68 404
Pulsar M RT2U(6)	68 401	68 403 - /
Pulsar M RT3U HotSwap(7)	FR: 68 406 DIN: 68 407 BS: 68 408 IEC: 68 409 HW: 68 410	FR: 68 412 DIN: 68413 BS: 68 414 IEC: 68 415 HW: 68 416
Pulsar M RT2U Netpack(8)	68 411	68 417
Pulsar M EXB RT3U(6)	68 405	
Pulsar M ModularEasy kit(6) (for paralleling 2 Pulsar Ms)	68 418	
Pulsar Rack Kit 2U/3U (not supplied with Pulsar M RT)	68 441	

6: Includes rack kit. **7:** Pulsar M RT3U HotSwap = Pulsar M RT + rack kit + HotSwap MBP. **8:** Pulsar M RT2U Netpack = Pulsar M RT2U + NMC 2006 edition.

MGE PowerServices™

2 year guarantee, including batteries
Standard exchange of product in case of failure, including batteries.

Associated services(1):

Warranty+: 3 year extended guarantee.
Start Up+: on site commissioning.
Warranty+ Silver: Warranty+ and Start Up+.
Warranty+ Gold: Warranty+ Silver and 3 annual service visits.

1: Depending on the country, see *www.mgeups.com/services.*

Communications software and hardware

Solution-Pac software on CD-ROM with each UPS
For monitoring the server(s) powered by the UPS and for local and remote UPS supervision.

Network Management Card (NMC) 2006
For connecting the UPS to an Ethernet 10/100 network, raising SNMP alarms and supervising the UPS using a simple browser interface.

NMC environment sensor
Monitoring the temperature, humidity and 2 relay contacts via SNMP or HTML.

Enterprise Power Manager supervisor
For comprehensive management of a set of UPSs using a Windows PC.

Management-Pac 2 suite
NMS integration kit: HP OpenView, IBM Tivoli Netview, CA Unicenter, etc.

Management Card Contacts/Serial
To provide UPS status outputs via relay contacts, emergency stop and a second serial port.

NMC ModBus/JBus card
For combined SNMP, HTML and ModBus/JBus supervision.

UPS Control remote display
To monitor the UPS status up to 25m from the unit.

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